

x *VERONICENA HAARTMANI* Moldenke, nom. nov.

x*Veronica hybrida* Haartm., Pl. Hybrid. 7--8. 1751 (not *V. hybrida* L., 1753); x*Veronica spuria* Haartm., Amoen. Acad. 3: 35, pl. 2. 1756 (not *V. spuria* L., 1753).

PREMNA CYCLOPHYLLA Miq.

The type of this species is an unnumbered collection of Horsfield from Java (Patjitan) according to Miq., Fl. Ind. Bat. 2: 899. 1858. The drawing on the next page of these notes is made from sheet no. 49894 in the Utrecht herbarium. The collector and locality of collection are not indicated on this sheet, but I suspect that it is actually the type specimen.

PREMNA INVOLUCRATA Moldenke

The drawing of this species on the following pages was made from the type specimen, Pierre 1216, sheet no. 22939 in the Buitenzorg herbarium.

PREMNA MOLUCCANA Moldenke

The drawing of this species on the following pages was made from the actual type specimen, Main & Eden 883, sheet no. 72878 in the Buitenzorg herbarium.

PREMNA NOVOGUINEËNSIS Moldenke

The drawing of this species on the following pages was made from the actual type specimen, Docters van Leeuwen 10575, sheet no. 72679 in the Buitenzorg herbarium.

ADDITIONAL NOTES ON THE GENUS TECTONA. II

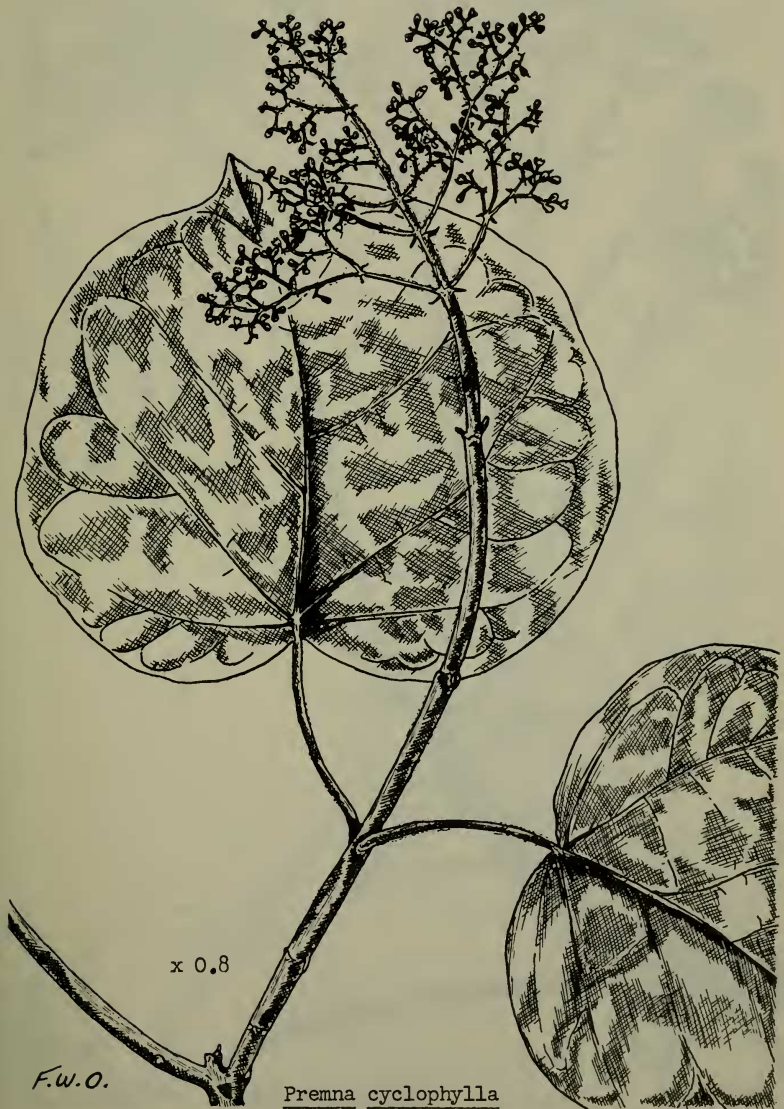
Harold N. Moldenke

TECTONA GRANDIS L. f.

Literature: Decaisne, Nouv. Ann. Mus. Nat. Paris 3: 402. 1834; Miq., Fl. Ind. Bat. 2: 901. 1858; Kuntze, Rev. Gen. Pl. 1: 508. 1891.

Mendoza, on the label of the collection cited below, states that the species is both "planted and naturalized" on Luzon.

Additional citations: INDIA: United Provinces: Poovaliah s.n. [9-1-30] (N), s.n. [16.8.31] (N). BURMA: Upper Burma: Burma Forest School Herb. 22 [Imp. Forest. Inst. 3617] (N), 46 (N), s.n. [14-6-29] (N). PHILIPPINE ISLANDS: Luzon: Mendoza 62 (N). CULTIVATED: Philippine Islands: E. D. Merrill Sp. Blanc. 837 (Bm, Bz--23647, Bz--23648, P, V, V); Nano s.n. [Philip. Forest. Bur. 27180] (Oa); Quisumbing 7989 (Mi). Java: Backer s.n. [Apr. 1903] (Bz--23527, Bz--23528, Bz--23529, Bz--23530, Bz--23531, Bz--23532, Bz--23533); Bakhuizen van den Brink Jr. 1919 (Bz--23512);



Premna cyclophylla



x 0.8

F.W.O.

Premna involucrata





x 5.6

F.w.O. x 0.8

Premna novoguineensis

Burger 1135 (Bz--23511); Büsgen 2 (Bz--23513); Busse 1674 (B); Edeling s.n. [Nov. 1863] (Bz--23517); H. Hallier C.34a (X); Herb. Bonaparte 54 (Oa); Herb. Hort. Bot. Bogor. 64 (Mi), XI.I.25 (Br, Bz--25825, Bz--25826, N), XI.I.25a (Br, Bz, Bz--25827, Bz--26596, N), XI.Y.6 (Bz--23506, Bz--23505), s.n. (Bz--23504, Bz--23507, Bz--23508, Bz--23509, Bz--23510); Herb. Mus. Paris s.n. [Jard. Bot. Buitenz.] (P, P); Herb. Prager 18670 (Gg--31262); Koorders 9756b (Bz--23555, Bz--23556), 9772b [Boschwezen 282] (Bz--23574, Bz--23575); 01 628 (Bz--23519); Teijsmann s.n. [ex Hort. Bog. Javae, 1860] (B, Le, Le, Le); Volkens 1 (B, B, B, B, B, B). Niue: Yuncker 9885 (Dp--29044). Hawaiian Islands: Eastwood s.n. [For-estry Station, Honolulu, August 1--16, 1924] (Gg--34507); Kelly 144, in part (Gg--31263, in part); Yuncker 3559 (Dp, Hp). Australia: F. A. K. Bleeser 613 (B). LOCALITY OF COLLECTION UNDETERMINED: Bory de Saint Vincent s.n. (P); Dahl s.n. (S); Herb. Mus. Bot. Stockholm s.n. (S); Herb. Petit-Thouars s.n. (P). MOUNTED ILLUSTRATIONS: Holtz neg. 301 (B).

TECTONA GRANDIS f. ABLUDENS Koord. & Valet.

This form differs from the typical form of the species in having its leaf-blades deeply, irregularly, or even grotesquely lobed or else narrow-elongate in shape and lobed.

Original publication: Lam & Bakh., Bull. Jard. Bot. Buitenz., sér. 3, 3: 28. 1921.

Literature: Koord. & Valet., Bijdr. Booms. Java 7: 171. 1900; Costerus & Sm., Ann. Jard. Bot. Buitenz., sér. 2, 9: 113, figs. 17 & 18. 1911; Koord. & Valet., Atlas Baumsart. 2: fig. 264. 1914; Lam & Bakh., Bull. Jard. Bot. Buitenz., sér. 3, 3: 28. 1921; Moldenke, Phytologia 1: 156. 1935; Moldenke, Alph. List Invalid Names 43. 1942.

Illustrations: Costerus & Sm., Ann. Jard. Bot. Buitenz., sér. 2, 9: figs. 17 & 18. 1911; Koord. & Valet., Atlas Baumsart. 2: fig. 264 (as T. grandis). 1914.

Rutten reports a tree of this form 5 meters tall, with a trunk 6 cm. in diameter at breast height, growing at an altitude of 100 meters on the island of Java.

Lam and Bakuizen imply that the trinomial used here for this form occurs in Koord. & Valet., Bijdr. Booms. Java 7: 171 (1900) and I copied this reference in my monograph in PHYTOLOGIA, but it does not occur there! They also imply that it occurs in Koord. & Valet., Atlas Baumsart. 2: fig. 264 (1914) and in Costerus & Smith, Ann. Jard. Bot. Buitenz., sér. 2, 9: 113, figs. 17 & 18 (1911), but it does not. Only the form is described in these references and illustrated under the name of Tectona grandis.

Citations: JAVA: Grutterink s.n. [10 Juli 1918] (Bz--23524, Bz--23525); Herb. Bogoriense 23638 (Bz), 23639 (Bz), 23690 (Bz, N--photo, Z--photo), 23691 (Bz), 23692 (Bz), 23693 (Bz); Koorders 11187b (Bz--23599), 42296b [tree 104r] (Bz--23566, Bz--23567); L.

Rutten 1a (Bz--23526). LOCALITY OF COLLECTION UNDETERMINED: Herb. Hort. Bot. Utrecht 59740 (Ut).

TECTONA GRANDIS var. **GLABRIFOLIA** Moldenke

Literature: Moldenke, *Phytologia* 2: 321, 342, 345, & 347. 1947; Moldenke, *Known Geogr. Distrib. Verbenac.*, ed. 2, 128, 151, 163, & 196. 1949.

The labels on the Baker collection, cited below, do not indicate that the material is from cultivated plants, but it was apparently gathered on the grounds of the Royal Botanic Garden, so I assume that it was cultivated there. The Britton Herbarium specimen of this collection has the word "Brazil" on its label, doubtless in error. The Gillespie collection bears labels that say "doubtless introduced". The Yeshoda material was collected at 3000 feet altitude.

Citations: INDIA: Madras: Yeshoda 284 (N). Mysore: G. Thomson s.n. [Maisor & Carnatic] (Bz--23678). State undetermined: R. Wight 2306 (S). FIJI ISLANDS: Ovalau: J. W. Gillespie 4544 (Bz--23684--isotype, N--type). PHILIPPINE ISLANDS: Mindanao: Whitford & Hutchinson s.n. [Herb. Philip. Forest. Bur. 9489] (N). CULTIVATED: Ceylon: C. F. Baker 126 (Bz--23674, Bz--23675, Bz--23676, N, N).

TECTONA HAMILTONIANA Wall.

Literature: Wall., *Numer List* 773. 1828; Wall., *Pl. As. Rar.* 3: 68, pl. 294. 1832; Bojer, *Hort. Maurit.* 259. 1837; Hamilt., *Trans. Linn. Soc.* 17: 185--186. 1837; Walp., *Repert.* 4: 99. 1846; Schau. in A. DC., *Prodr.* 11: 629. 1847; Miq., *Fl. Ind. Bat.* 2: 902. 1856; Mason, *Burmah & its People* 526. 1860; Benth. in Benth. & Hook. f., *Gen. Pl.* 2 (2): 1152. 1876; Kurz, *Forest Fl. Burma* 2: 259. 1877; Gamble, *Man. Timbers* 293. 1881; Hook. f., *Fl. Brit. Ind.* 4: 571. 1885; Watt, *Dict. Econom. Prod. India* 6 (4): 14. 1893; Briq. in Engl. & Prantl, *Nat. Pflanzenfam.* 4 (3a): 167. 1895; E. D. Merr., *Bur. Gov. Lab. Bull.* 27: 68. 1905; Gerth van Wijk, *Dict. Pl. Names.* 1911; H. J. Lam, *Verbenac. Malay. Arch.* 94, 96--97, & 368. 1919; Lam & Bakh., *Bull. Jard. Bot. Buitenz.*, sér. 3, 3: 28. 1921; Junell, *Symb. Bot. Upsal.* 4: 87 & 89. 1934; Moldenke, *Suppl. List Common Names* 21 & 22. 1940; Moldenke, *Known Geogr. Distrib. Verbenac.* [ed. 1], 55, 61, 74, & 100. 1942; Moldenke, *Alph. List Invalid Names* 43 & 44. 1942; Moldenke, *Phytologia* 2: 114. 1944; A. P. Benthall, *Trees of Calcutta* 351--352. 1946; Moldenke, *Alph. List Invalid Names Suppl.* 1: 21. 1947; Moldenke, *Known Geogr. Distrib. Verbenac.*, ed. 2, 129, 139, 140, 163, & 196. 1949.

Illustrations: Wall., *Pl. As. Rar.* 3: pl. 294. 1832; A. P. Benthall, *Trees of Calcutta* 352. 1946.

Synonymy: Tectona ternifolia Buch.-Ham. ex Wall., *Pl. As. Rar.* 3: 68, in syn. 1832. Theka ternifolia Hamilt., *Trans. Linn. Soc.* 17: 185--186. 1837. Tectonia hamiltoniana Wall. ex Walp., *Repert.* 4: 99. 1846. Tectona ternifolia Ham. ex Briq. in Engl. & Prantl, *Nat. Pflanzenfam.* 4 (3a): 167. 1895. Tectona hamiltoniana L. f.

ex Moldenke, Alph. List Invalid Names Suppl. 1: 21, in syn. 1947.

Common names recorded for the species include "Burmaholz", "Burma-wood", "dwarf teak", "ta-hat", and "ta-nap".

Bojer records the species as cultivated in the Royal Botanic Gardens at Pamplemousse, Mauritius, and states that it is native to eastern India and Burma. The wood is light-brown, hard, and close-grained, weighing about 64 pounds per cubic foot, much harder and heavier than ordinary teak. It is a good wood and, according to Gamble, "likely to be useful". Benthall says of the tree "when not in flower, it has little to recommend it, but its large clusters of flowers are pretty in a quiet way, and it is certainly worth growing as an avenue tree. The leaves fall at the end of the cold season and are replaced in March. The flowers begin to open as the new leaves appear and continue during April and into May."

Citations: BURMA: Upper Burma: Dejakaisaga 19 (N, N); W. Griffith 6016 (S); Herb. Burma Forest School 10 (S); Meebold 7953 (S); Seaton s.n. [Promé] (Bz--23695); Shaik Mokim 7 [Colonial Herb. 21592] (Na). CULTIVATED: India: Gamble 5947 (K); Herb. Bogoriense 23694 (Bz); S. Kurz s.n. [cult. in Horto Botanico Calcuttensi] (Bz--23697, Bz--23698, N), s.n. [H. B. C.] (Bz--23696). Java: Herb. Hort. Bot. Bogor. XI.J.10 (Bz--25848, Bz--26566, Bz).

TECTONA PHILIPPINENSIS Benth.

Literature: Schau. in A. DC., Prodr. 11: 629. 1847; Miq., Fl. Ind. Bat. 2: 902. 1858; Benth. in Benth. & Hook. f., Gen. Pl. 2: 1152. 1876; F.-Vill., Novis App. 158. 1880; Vidal, Phan. Cuming. Philip. 134. 1885; Vidal, Rev. Pl. Vasc. Filip. 209. 1886; Briq. in Engl. & Prantl, Nat. Pflanzenfam. 4 (3a): 167. 1895; Jacks., Ind. Kew. 2: 1040. 1895; E. D. Merr., Philip. Journ. Sci. Bot. 5: 227--228. 1910; E. D. Merr., Sp. Blanc. 330. 1918; H. J. Lam, Verbenac. Malay. Arch. 94, 97, & 368. 1919; E. D. Merr., Enum. Phil. Pl. 3: 389. 1923; Lam & Bakh., Bull. Jard. Bot. Buitenz., sér. 3, 3: 28. 1921; Moldenke, Phytologia 1: 155. 1935; Moldenke, Known Geogr. Distrib. Verbenac. [ed. 1], 62 & 100. 1942; Moldenke, Alph. List Invalid Names 23 & 43. 1942; Moldenke, Phytologia 2: 114. 1944; Moldenke, Known Geogr. Distrib. Verbenac., ed. 2, 142 & 196. 1949.

Synonymy: Diospyros tectona Blanco, Fl. Filip., ed. 2, 609, nom. nud. 1845. Tectona philippinensis Benth. & Hook. f. ex Jacks., Ind. Kew. 2: 1040. 1895. Tectona philippinensis Merr. ex H. J. Lam, Verbenac. Malay. Arch. 94. 1919. Tectona hamiltoniana Schau. ex E. D. Merr., Enum. Phil. Pl. 3: 389, in syn. 1923.

Common names for this species are "bunglas", "daladon", "malapangit", and "malapangit".

The binomial is often accredited to Merrill, who actually first validated it by publishing a description with it in 1910. In this reference, however, Merrill plainly states that the binomial is taken from Bentham's work of 1876, so I feel that it should continue to be accredited to Bentham. Merrill states that the Philippine specimens cited by Schauer, Miquel, and Fernandez-

Villar under T. hamiltoniana are actually T. philippinensis. He cites, in addition, Cuming 1432 (type), Medina s.n. [Philip. Forest. Bur. 25065], Curran & Merritt s.n. [Philip. Forest. Bur. 7746].

The species is said to grow in rather open brushland, thickets and secondary forests at low altitudes.

Citations: PHILIPPINE ISLANDS: Luzon: E. D. Merrill Sp. Blanc. 503 (Bz--23734, Bz--23735, N).

MATERIALS TOWARD A MONOGRAPH OF THE GENUS VITEX. I

Harold N. Moldenke

VITEX Tourn. ex L., Sp. Pl., ed. 1, 635. 1753; Gen. Pl., ed. 5, 285. 1754.

Literature: Bock, De Stirp. 1075. 1552; Tourn., Instit. Rei Herb. 603. 1719; L., Syst., ed. 1. 1735; Blackwell, Herb. Blackw. pl. 139. 1757; L., Sp. Pl., ed. 1, 2: 635 & 638. 1753; L., Gen. Pl., ed. 5, 285. 1754; Adans., Fam. Pl. 2: 12 & 200. 1763; L., Gen. Pl., ed. 6. 1764; Weston, Botan. Univers. 1: 311. 1770; Vand., Fl. Lusit. 42--43, pl. 3, fig. 21. 1788; Gaertn., De Fruct. & Sem. 1: pl. 56. 1788; A. L. Juss., Gen. Pl. 107 & 119--123. 1789; Neck., Elem. Bot. 1: 328--358. 1790; Cothen, Disp. Veg. 8. 1790; Lour., Fl. Cochinch. 84. 1790; Vahl, Eclog. Amer. 2: pl. 18. 1791; Schkuhr, Bot. Handb. 1791--1803; Nernich, Allgem. Polyglott. Lex. Naturgass. 1793--1795; Vent., Tabl. Reg. Veg. 2: 219. 1794; Roem., Script. Hisp. 126, pl. 7, fig. 21. 1796; Bot. Mag. 11: pl. 364. 1797; Lam., Tabl. Encycl. 3: pl. 541. 1797; A. Rich. in Marthe, Cat. Pl. Jard. Méd. Paris 67. 1801; Mirbel, Hist. Nat. Pl., ed. 3, 15: 206. 1805; Thou., Gen. Nov. Madag. 8. 1806; Pers., Syn. Pl. 2: 173. 1806; A. L. Juss., Ann. Mus. Hist. Nat. Paris 7: 70 & 77. 1806; Lam. & DC., Fl. Franç. 3: 502. 1815; G. F. W. Mey., Prim. Fl. Esseq. 219. 1818; Bot. Mag. 47: pl. 2187. 1820; Roth, Nov. Pl. Sp. 317. 1821; Reichenb. in Mössler, Handb. Gewächsk., ed. 1, 1: xxxvi. 1827; Schumacher, Beskriv. Guin. Pl. 1827; Duby in P. DC., Bot. Gall. 1: 375. 1828; Reichenb., Conspect. Reg. Veg. 1: 117. 1828; Sibth. & Sm., Fl. Graec. 7: pl. 609. 1830; Wall., Pl. As. Rar. pl. 226. 1832; Reichenb. in Mössler, Handb. Gewächsk., ed. 3, 1: lxxv. 1833; Manso, Enum. Subst. Braz. 36. 1836; Endl., Gen. Pl. 635. 1836--1840; A. Cunn., Ann. Nat. Hist., ser. 1, 1: 461. 1838; A. DC., Bibl. Univ. Genève. 17: 132. 1838; Hook. & Arn., Bot. Beech. Voy. pl. 47 & 48. 1841; Hook., Icon. Pl. 5: pl. [419] 420. 1842; Wight, Icon. 2: pl. 519. 1843; Walp., Repert. 4: 91. 1844; Benth. Bot. Voy. Sulphur 10. 1844; Bertol., Fl. Ital. 6: 455--457. 1844; Gussone, Fl. Sic. Syn. 2: 1 & 110. 1844; Schau. in A. DC., Prodr. 11: 218 & 682--683. 1847; Walp., Annal. 1: 545. 1848--1849; Hook., Niger Fl. 487. 1849; Wight, Icon. 4 (1): 1465--1467. 1849;